

## Federal Operating Permit Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Lees Carpets Division of Mohawk Industries, Inc.
Facility Name:	Lees Carpets
Facility Location:	404 Anderson Street Glasgow, Virginia
Registration Number:	80269
Permit Number:	VRO80269

Effective Date	July 26, 2001
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Amendment Date	January 22, 2004
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Signature	<i>R. Bradley Chewning</i>
Signature Date	October 25, 2005

Table of Contents, 2 pages  
Permit Conditions, 60 pages  
Source Testing Report Format  
Attachment A

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## **I. Facility Information**

### **Permittee**

Lees Carpets Division of Mohawk Industries, Inc.  
404 Anderson Street  
Glasgow, Virginia 24555-2801

### **Responsible Official**

Joe Wallace  
Vice President of Manufacturing

### **Facility**

Lees Carpets  
404 Anderson Street  
Glasgow, Virginia 24555-2801

### **Contact Person**

Dennis Dickison  
Plant Engineer  
540-258-2811 Ext. 370

**County-Plant Identification Number:** 51-163-0001

**Facility Description:** NAICS 314110 - Carpet and Rug Mills

Lees Carpets Division of Mohawk Industries, Inc. operates a nylon carpet manufacturing facility in Glasgow, Virginia. Activities of the facility to support the carpet manufacturing production process include fuel burning and coal handling, yarn and carpet dyeing, yarn processing, carpet backing and ancillary operations such as storage silos.

## II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Fuel Burning Equipment</b>							
B5	B5	Babcock and Wilcox Boiler (installed before 1972)	120 MMBtu/hr	-	-	-	-
B6	B6	Babcock and Wilcox Boiler (installed before 1972)	72 MMBtu/hr	-	-	-	-
B7	B7	Erie City VC Boiler (1978)	155 MMBtu/hr	Two (2) Zurn multicyclones	B7	PM/PM-10 and Lead	2/13/78 Amended 2/16/78
<b>Coal Handling</b>							
CH1	-	Railcar Shaker (1980)	120,000 lbs/hr	-	-	-	-
CH2	-	Coal Bucket Elevator (1980)	120,000 lbs/hr	-	-	-	-
CH3	-	Storage Pile Transfer (1980)	120,000 lbs/hr	-	-	-	-
CH4	-	Coal Storage Pile (1980)	5,000 tons	-	-	-	-
CH5	CH5	Coal Storage Silo (1980)	120,000 lbs/hr (500 tons storage)	Wet Suppression	CH5	PM/PM-10	-
<b>Yarn Dye Lines</b>							
YD1	YD1-1&2	#1 Ilma Line	3900 lbs yarn/hr	-	-	-	12/10/99
	YD1-3						
YD2	YD2-S2	#2 Ilma Line	1.85 tons of dyeing solution per 1.54 tons of fabric per hour	-	-	-	12/12/90
	YD2-D1						
	YD2-D2						
YD3	YD3	Ilma Sample Line (1992)	300 lbs yarn/hr	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
YD4	YD4	Lanly Dryer	600 lbs yarn/hr	-	-	-	7/10/86
YD5	-	Pack Kettles (Total of 8) (1952)		-	-	-	-
<b>Yarn Processing Lines (Heat Setting)</b>							
HS1	HS1	#1 Suessen Heat Set Line	440 lbs yarn/hr	Fisher-Klosterman Model HC1-01 Oil Mist Collector	HS1	PM/PM-10	11/8/02 Amended 6/29/05
<b>Carpet Dye Lines</b>							
CD1	CD1-D1 thru D5	Kuster Dyeing	125 tons/hr carpet and dye	-	-	-	7/17/74
	CD1-S						
CD3	CD3-1 and CD3-2	Atmospheric Beck Dyeing (2 machines) (1987)	Average 3250 lbs/hr carpet and dye/8 hr	-	-	-	-
CD4	CD4-1 thru 5	Piece Dryer (1977)	62.5 tons/hr carpet and dye	-	-	-	-
<b>Carpet Backing Lines</b>							
L1	L1	Latex Line (constructed before 1972)	3840 yd <sup>2</sup> /hr; 8784 lbs/hr	Wet Electrostatic Precipitator	L1	PM/PM-10	-
LCS	LCS	Latex Calcium Carbonate Filler Silo (constructed before 1972)	60,000 lbs/hr	Fabric Filter	LCS	PM/PM-10	-
SBRM		SBR Latex Mixer (constructed before 1972)	-				

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
VAES	VAES	VAE Latex Filler Silo	130,000 lbs/hr; 4,420 TPY	Ultra Industries Fabric Filter Model #CBVC 7-36-11	VAES	PM/PM-10	12/5/97
VAEM		VAE Latex Mixer	-				
PVC1	PVC1	PVC Carpet Backing Line	1800 yd <sup>2</sup> /hr	Ceco Twin Pack Fiber Bed (Coalescing Filter)	PVC1	PM/PM-10	3/22/02 Amended 6/29/05
PVC2	PVC2	PVC Foamback Line	562.5 yd <sup>2</sup> /hr				
PVCS	PVCS	PVC Silo	60,000 lbs/hr; 15,000 TPY	Ultra Industries Fabric Filter by IMH	PVCS	PM/PM-10	
HM1	HM1-PC and HM1-MC	Hot Melt Line (1975)	4788 yd <sup>2</sup> /hr	-	-	-	-
HMM	HMM	Hot Melt Mix Tanks (2) (1975)	68,000 lbs/8 hrs total	Fabric Filter	HMM	PM/PM-10	-
	HMM-vent	Hot Melt Mix Tanks - Vents (2) (1975)		-	-	-	-
RHMM	RHMM	Remote Hot Melt Mix Tank (1989)	68,000 lbs/24 hrs total	Walton Stout Fabric Filter	RHMM	PM/PM-10	-
	RHMM-vent	Remote Hot Melt Mix Tank - Vent (1989)		-			-

\*The Size/Rated Capacity is provided for informational purposes only and is not an applicable requirement.

### **III. Fuel Burning Equipment Requirements – (B5, B6 and B7)**

#### **A. Limitations**

1. Particulate matter emissions from the operation of the Erie City VC boiler (B7) shall be controlled by the use of two Zurn multicyclones.  
(9 VAC 5-80-110 and 2/13/78 Permit)
2. Particulate matter emissions from the operation of the Erie City VC boiler (B7) shall not exceed 0.28 pounds per million BTU heat input or 43.4 pounds per hour.  
(9 VAC 5-80-110 and Condition 4 of 2/13/78 Permit)
3. Particulate matter emissions from the operation of the Babcock and Wilcox boiler (B5) shall not exceed 24.8 pounds per hour.  
(9 VAC 5-80-110, 9 VAC 5-40-900 and 9 VAC 5-40-910)
4. Particulate matter emissions from the operation of the Babcock and Wilcox boiler (B6) shall not exceed 14.8 pounds per hour.  
(9 VAC 5-80-110, 9 VAC 5-40-900 and 9 VAC 5-40-910)
5. Sulfur dioxide emissions from the operation of the boilers (B5, B6 and B7) combined shall not exceed 916.08 pounds per hour.  
(9 VAC 5-80-110 and 9 VAC 5-40-930)
6. The approved fuel for the Erie City VC boiler (B7) is coal. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-110 and Condition 7 of 2/13/78 Permit)
7. The approved fuels for the Babcock and Wilcox boilers (B5 and B6) are natural gas and residual oil. A change in the fuels may require a permit to modify and operate.  
(9 VAC 5-80-110)
8. The average annual ash content of the coal to be burned in the Erie City VC boiler (B7) shall not exceed seven percent (7%) and the average annual sulfur content of the coal burned in the Erie City VC boiler (B7) shall not exceed one percent (1%).  
(9 VAC 5-80-110 and Condition 5 of 2/13/78 Permit)
9. The maximum sulfur content of the residual oil to be burned in the Babcock and Wilcox boilers (B5 and B6) shall not exceed two and a half percent (2.5%) by weight per shipment.  
(9 VAC 5-80-110)

10. Visible emissions from the Erie City VC boiler stack (B7) shall not exceed twenty percent (20%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed thirty percent (30%) opacity.  
(9 VAC 5-80-110 and 9 VAC 5-50-80)
11. Visible emissions from each of the Babcock and Wilcox boiler stacks (B5 and B6) shall not exceed twenty percent (20%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed sixty percent (60%) opacity.  
(9 VAC 5-80-110 and 9 VAC 5-40-940)
12. Boiler emissions shall be controlled by proper operation and maintenance. Boiler operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum. The permittee shall have available good written operating procedures and a maintenance schedule for each boiler.  
(9 VAC 5-80-110)

## **B. Monitoring and Recordkeeping**

1. An annual internal inspection shall be conducted on each of the two Zurn multicyclones by the permittee to insure structural integrity. The permittee shall record:
  - a. The date, time and name of the person performing each inspection;
  - b. The results of each inspection; and
  - c. The maintenance performed, if required, including the date, time and name of the person(s) performing the maintenance.  
(9 VAC 5-80-110)
2. The permittee shall perform periodic monitoring of the Babcock and Wilcox boiler stacks (B5 and B6) as follows:
  - a. Conduct weekly inspections of each stack to determine the presence of visible emissions. If during the inspection, visible emissions are observed, an EPA Method 9 (40 CFR Part 60, Appendix A) visible emissions evaluation (VEE) shall be conducted. The VEE shall be conducted for a minimum period of six (6) minutes. If any of the observations exceed the applicable opacity limit, the observation period shall continue until sixty (60) minutes of observations have been completed.

- b. If the results of any VEE exceed the standard in Condition III.A.11, a performance test shall be conducted for particulate matter (PM) on the boiler stack which exceeded the standard using EPA Method 5 (40 CFR Part 60, Appendix A). The tests shall be performed and demonstrate compliance with the standard contained in Condition III.A.3 or III.4.A within 90 days of the exceedance of the opacity standard or within one calendar year of the previous stack test of that boiler stack whichever occurs later. The details of the test are to be arranged with the Director, Valley Region. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, Valley Region, within 45 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-80-110)

3. When a performance test is required by Condition III.B.2.b, the permittee shall conduct a concurrent VEE, in accordance with 40 CFR Part 60, Appendix A, Method 9, on the stack being tested. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average. The details of the tests are to be arranged with the Director, Valley Region. The permittee shall submit a test protocol at least 30 days prior to testing. Should conditions prevent concurrent opacity observations, the Director, Valley Region, shall be notified in writing, within seven days, and visible emissions testing is to be rescheduled within 30 days. Rescheduled testing is to be conducted under the same conditions (as possible) as the performance tests. Two copies of the test results shall be submitted to the Director, Valley Region, within 45 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-80-110)

4. The permittee shall perform a weekly inspection of the Erie City VC boiler stack (B7). The inspection shall include an observation of the presence of visible emissions. If during the inspection visible emissions are observed, a visible emissions evaluation (VEE) shall be conducted in accordance with 40 CFR Part 60, Appendix A, EPA Method 9. The VEE shall be conducted for a minimum of six (6) minutes. If any of the observations exceed twenty percent (20%), the VEE shall be conducted for a total of sixty (60) minutes. All observations, VEE results and corrective actions taken shall be recorded.

(9 VAC 5-80-110)

5. The permittee shall obtain a certification from the fuel supplier with each shipment of residual oil. Each fuel supplier certification shall include the following:
  - a. The name of the fuel supplier;
  - b. The date on which the residual oil was received;
  - c. The volume of residual oil delivered in the shipment;

- d. A statement that the oil complies with the American Society for Testing and Materials specifications for residual oil; and
- e. The sulfur content (in percent) of the residual oil.

(9 VAC 5-50-410 and 9 VAC 5-80-110)

- 6. The permittee shall obtain a certification from the fuel supplier with each shipment of coal. Each fuel supplier certification shall include the following:
  - a. The name of the fuel supplier;
  - b. The date on which the coal was received;
  - c. The weight of the coal delivered in the shipment;
  - d. The method used to determine the sulfur content of the coal;
  - e. The higher heating value of the coal;
  - f. The ash content (in percent) of the coal; and
  - g. The sulfur content (in percent) of the coal.

(9 VAC 5-50-410 and 9 VAC 5-80-110)

- 7. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Valley Region. These records shall include, but are not limited to:
  - a. The monthly and annual throughput of natural gas (in million cubic feet) and residual oil (in 1000 gallons) for each Babcock and Wilcox boiler (B5 and B6). The annual throughput shall be calculated monthly as the sum of each consecutive twelve (12) month period.
  - b. The monthly and annual throughput of coal (in tons) for the Erie City VC boiler (B7). The annual throughput shall be calculated monthly as the sum of each consecutive twelve (12) month period.
  - c. All fuel supplier certifications.
  - d. A log of annual inspections for the Zurn multicyclones.

- e. A log of weekly inspections and the results of all VEEs and performance tests performed on each Babcock and Wilcox boiler stack (B5 and B6) as required in Condition III.B.2.
- f. The results of all VEEs performed on each Babcock and Wilcox boiler stack (B5 and B6) as required in Condition III.B.3.
- g. A log of weekly inspections and the results of all VEEs performed on the Erie City VC boiler stack (B7) as required in Condition III.B.4.
- h. The results of the performance test and concurrent VEE performed on the Erie City VC boiler stack (B7) as required in Conditions III.C.1 and III.C.2
- i. The DEQ-approved, pollutant-specific emission factors and the equations used to demonstrate compliance with Conditions III.A.2, III.A.3, III.A.4 and III.A.5.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.  
(9 VAC 5-80-110)

- 8. The permittee shall maintain records of the required training for the boiler operators including a statement of time, place and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the boilers. These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.  
(9 VAC 5-80-110)

### **C. Testing**

- 1. The permittee shall conduct a performance test for particulate matter (PM) from the Erie City VC boiler (B7) using the reference method specified below to demonstrate compliance with the emission limit contained in Condition III.A.2. The test shall be performed within 180 days of the issuance of this permit. The test shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 40 CFR Part 60, Appendix A, EPA Method 5. The details of the test are to be arranged with the Director, Valley Region. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, Valley Region, within 45 days after test completion and shall conform to the test report format enclosed with this permit.  
(9 VAC 5-80-110)
- 2. Concurrently with the performance test, a VEE shall be conducted in accordance with 40 CFR Part 60, Appendix A, EPA Method 9. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six-minute average. The

details of the test are to be arranged with the Director, Valley Region. The permittee shall submit a test protocol at least 30 days prior to testing. Should conditions prevent concurrent opacity observations, the Director, Valley Region, shall be notified in writing, within seven days, and visible emissions testing is to be rescheduled within 30 days. Rescheduled testing is to be conducted under the same conditions (as possible) as the performance test. Two copies of the test results shall be submitted to the Director, Valley Region, within 45 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-80-110)

3. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
SO <sub>2</sub>	EPA Methods 6, 19
PM/PM-10	EPA Methods 5, 17
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

#### **IV. Process Equipment Requirements – Coal Handling (CH1 – CH5)**

##### **A. Limitations**

1. Particulate emissions from the railcar shaker (CH1), coal bucket elevator (CH2), storage pile transfer (CH3) and coal storage silo stack (CH5) shall not exceed the process weight limit as determined by the following equation:

$$E = 55.0P^{0.11}-40$$

Where:

E = emission rate in lbs/hr

P = process weight rate in tons/hr

(9 VAC 5-40-260 and 9 VAC 5-80-110)

2. Particulate emissions from the coal storage silo (CH5) shall be controlled by wet suppression. The wet suppression system shall be provided with adequate access for inspection.

(9 VAC 5-80-110)

3. Fugitive dust emission controls for the railcar shaker (CH1), coal bucket elevator (CH2), storage pile transfer (CH3) and coal storage pile (CH4) shall include the following, or equivalent, as a minimum:

- a. Dust from material handling, conveying, load-outs and traffic areas shall be controlled by wet suppression or equivalent (as approved by the DEQ).
- b. All material being stockpiled shall be kept adequately moist to control dust during storage and handling or covered at all times to minimize emissions.
- c. Dust from haul roads and traffic areas shall be controlled by application of asphalt, water, suitable chemicals or equivalent methods approved by the DEQ.
- d. Reasonable precautions shall be taken to prevent deposition of dirt on public roads and subsequent dust emissions. Dirt, product or raw material spilled or tracked onto paved surfaces shall be promptly removed to prevent particulate matter from becoming airborne.

(9 VAC 5-50-90 and 9 VAC 5-80-110)

4. Visible fugitive emissions from the railcar shaker (CH1), coal bucket elevator (CH2), storage pile transfer (CH3) and coal storage pile (CH4) shall not exceed twenty percent (20%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed thirty percent (30%) opacity.  
(9 VAC 5-50-80 and 9 VAC 5-80-110)
5. Visible emissions from the coal storage silo stack (CH5) shall not exceed twenty percent (20%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed thirty percent (30%) opacity.  
(9 VAC 5-50-80 and 9 VAC 5-80-110)

## **B. Monitoring and Recordkeeping**

1. The permittee shall perform a weekly inspection of the coal storage silo stack (CH5). The inspection shall include an observation of the presence of visible emissions. If during the inspection visible emissions are observed, a visible emissions evaluation (VEE) shall be conducted in accordance with 40 CFR Part 60, Appendix A, EPA Method 9, unless timely corrective action is taken such that the stack resumes operation with no visible emissions. The VEE shall be conducted for a minimum of six (6) minutes. If any of the observations exceed twenty percent (20%), the VEE shall be conducted for a total of sixty (60) minutes. All observations, VEE results and corrective actions taken shall be recorded.  
(9 VAC 5-80-110)
2. The permittee shall perform and maintain records of the following daily inspection and maintenance activities on the railcar shaker (CH1), coal bucket elevator (CH2), storage pile transfer (CH3) and coal storage pile (CH4):
  - a. The permittee shall inspect and maintain daily the water spray systems used to control fugitive emissions from coal handling activities;
  - b. The permittee shall perform a daily visual survey of the coal handling activities for any sources of excessive fugitive emissions. For the purpose of this survey, excessive emissions are considered to be any visible emissions that leave the plant site boundaries. The person conducting this survey does not have to be Method 9 certified. However, the individual should be familiar with the procedures of Method 9 including using the proper location to observe visible emissions. If sources of excess fugitive emissions are identified during the survey, the permittee shall use water or a suitable chemical treatment to minimize the fugitive emissions. If water is used to control the fugitive dust emissions, the permittee shall take care not to create a water quality problem from surface water run-off.

(9 VAC 5-80-110)

3. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Valley Region. These records shall include, but are not limited to:
- a. The pollutant-specific emission factors and equations used to demonstrate compliance with Condition IV.A.1.
  - b. Inspection records as required by Conditions IV.B.1 and IV.B.2.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.  
(9 VAC 5-80-110)

### C. Testing

If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
PM/PM-10	EPA Methods 5, 17
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

## **V. Process Equipment Requirements – Yarn Dye Lines (YD1 – YD5)**

### **A. Limitations**

1. Volatile organic compound emissions (VOC) from the #1 Ilma line (YD1) are limited to 0.0005 pounds VOC per pound of yarn dye as applied, calculated as a monthly weighted average.  
(9 VAC 5-80-110 and Condition 3 of 12/10/99 Permit)
2. VOC emissions from the #1 Ilma line (YD1) lubricant are limited to 0.003 pounds VOC per pound of yarn lubricant as applied, calculated as a monthly weighted average.  
(9 VAC 5-80-110 and Condition 4 of 12/10/99 Permit)
3. VOC emissions from the #2 Ilma line (YD2) shall be controlled by limiting the amount of volatile organic compounds within the dyeing solution to 0.0784 percent by weight. The permittee shall supply samples of the dyeing solution at any time upon request by the Department. The #2 Ilma line (YD2) shall be provided with adequate access for inspection.  
(9 VAC 5-80-110 and Part I - Condition 4 of 12/12/90 Permit)
4. The #1 Ilma line (YD1) shall not operate more than 7500 hours per year, calculated monthly as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-80-110 and Condition 6 of 12/10/99 Permit)
5. The throughput of carpet yarn dye for the #1 Ilma line (YD1) shall not exceed 3,416,400 pounds per month.  
(9 VAC 5-80-110 and Condition 7 of 12/10/99 Permit)
6. The throughput of carpet yarn lubricant for the #1 Ilma line (YD1) shall not exceed 284,700 pounds per month.  
(9 VAC 5-80-110 and Condition 9 of 12/10/99 Permit)
7. The throughput of carpet yarn dye for the #1 Ilma line (YD1) shall not exceed 35,100,000 pounds per year, calculated monthly as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-80-110 and Condition 8 of 12/10/99 Permit)
8. The throughput of carpet yarn lubricant for the #1 Ilma line (YD1) shall not exceed 2,925,000 pounds per year, calculated monthly as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-80-110 and Condition 10 of 12/10/99 Permit)

9. The annual consumption of dyeing solution for the #2 Ilma line (YD2) shall not exceed 16,170 tons, calculated monthly as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-80-110 and Part I - Condition 5 of 12/12/90 Permit)
10. The average throughput of steam to the #1 Ilma line (YD1) shall not exceed 10,968 pounds per hour, calculated on a weekly basis.  
(9 VAC 5-80-110 and Condition 11 of 12/10/99 Permit)
11. Visible emissions from each #1 Ilma line exhaust stack (YD1-1&2, and YD1-3) shall not exceed five percent (5%) opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A).  
(9 VAC 5-50-80, 9 VAC 5-80-110 and Condition 14 of 12/10/99 Permit)
12. Visible emissions from each #2 Ilma line exhaust stack (YD2-S2, YD2-D1, and YD2-D2) shall not exceed five percent (5%) opacity.  
(9 VAC 5-50-80, 9 VAC 5-80-110 and Part I - Condition 7 of 12/12/90)
13. Visible emissions from the Ilma sample line exhaust stack (YD3) and the Lanly dryer exhaust stack (YD4) shall not exceed twenty percent (20%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed thirty percent (30%) opacity.  
(9 VAC 5-50-80 and 9 VAC 5-80-110)
14. Visible fugitive emissions from the pack kettles (YD5) shall not exceed twenty percent (20%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed sixty percent (60%) opacity.  
(9 VAC 5-40-80 and 9 VAC 5-80-110)
15. The permittee is limited to use of the following Hazardous Air Pollutants (HAPs) in the carpet yarn dyes and lubricants used in the #1 Ilma line (YD1):

HAP	CAS Number
Formaldehyde	50-00-0
Methanol	67-56-1
Glycol Ethers	N/A

The permittee may use additional HAPs (listed in Attachment A) in the #1 Ilma line (YD1) under 9 VAC 5-50-160 D without obtaining a new permit provided the following conditions are met:

- a. Notification shall be given to the Director, Valley Region. Such notification shall be made within fifteen (15) days after the use of additional HAPs and shall include identification of the HAP, the date the HAP was first used, and the

anticipated maximum throughput of that compound in lbs/hr and tons/yr.  
Additional details of the notification should be arranged with the Director, Valley Region.

- b. The permittee shall operate this facility in compliance with 9 VAC 5 Chapter 50, Article 3, for all HAPs.
- c. The permittee shall not use any HAP which would make the facility subject to federal emission standards in 40 CFR 61 or 40 CFR 63.
- d. If a permit is required, failure to obtain the permit prior to the change in process formulation or the use of any additional HAP may result in enforcement action.

(9 VAC 5-80-110 and Condition 13 of 12/10/99 Permit)

- 16. The facility shall operate in compliance with 9 VAC 5 Chapter 40, Article 3 and 9 VAC 5 Chapter 50, Article 3. No changes in the facility that alter emissions of any non-criteria pollutant or cause the emission of additional non-criteria pollutants shall be made without the prior written approval of the Department.

(9 VAC 5-80-110 and Part II – Condition 8 of 7/10/86 Permit)

- 17. Emissions from the operation of the #1 Ilma line (YD1) shall not exceed the limits specified below:

Volatile Organic Compounds	3.5 lbs/hr	13.2 tons/yr
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Annual emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110 and Condition 12 of 12/10/99 Permit)

- 18. Emissions from the operation of the #2 Ilma line (YD2) shall not exceed the limits specified below:

Volatile Organic Compounds	2.9 lbs/hr	12.7 tons/yr
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Annual emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110 and Part I - Condition 6 of 12/12/90 Permit)

19. Emissions from the operation of the Lanly dryer (YD4) shall not exceed the limits specified below:

Volatile Organic Compounds	3.2 lbs/hr	1.8 tons/yr
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Annual emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110 and Part I - Condition 4 of 7/10/86 Permit)

20. The permittee shall develop, maintain and have available to all operators good written operating procedures for the operation of the #2 Ilma line (YD2).  
(9 VAC 5-80-110 and Part II - Condition 4 of 12/12/90 Permit)

## B. Monitoring

1. The permittee shall determine compliance with the VOC limits in Conditions V.A.1 and V.A.2 by calculating the monthly weighted average of the mass of VOC used per mass of yarn dye or lubricant as applied in the #1 Ilma line (YD1) using the following equation:

$$VOC = \frac{\sum_{i=1}^n W_i M_i}{\sum_{i=1}^n M_i}$$

Where:

VOC = the weighted average mass, in pounds, of VOC per mass, in pounds, of yarn dye or lubricant applied each calendar month

$W_i$  = the weight fraction of VOC of each yarn dye or lubricant (i) applied during the calendar month

$M_i$  = the total mass, in pounds, of each yarn dye or lubricant (i) applied during the calendar month

(9 VAC 5-80-110)

2. The VOC content of each yarn dye and lubricant shall be determined using the following procedures:
- The VOC content of each dye or lubricant as supplied shall be determined by the permittee or the supplier initially or when the dye or lubricant is modified or

substituted using Reference Method 24 or 24A (40 CFR Part 60, Appendix A). Such content shall be used for purposes of calculating emissions, the monthly weighted average mass of VOC per mass of yarn dye as applied and the monthly weighted average mass of VOC per mass of yarn lubricant as applied.

- b. Each dye and lubricant as supplied whose MSDS indicates a VOC content of 100% by weight may be assumed to be 100% VOC for the purpose of calculating emissions, the monthly weighted average mass of VOC per mass of yarn dye as applied and the monthly weighted average mass of VOC per mass of yarn lubricant as applied in lieu of Reference Method 24 or 24A (40 CFR Part 60, Appendix A) testing.
  - c. The initial testing shall be conducted by the permittee or the supplier for each dye and lubricant as supplied within 180 days of the effective date of this permit.
  - d. Each new dye and lubricant as supplied received after the effective date of this permit or when the dye or lubricant is modified or substituted shall be tested by the permittee or the supplier within 90 days of the receipt of shipment, modification or substitution. Each dye and lubricant as supplied shipment received shall be clearly identified by a product formulation number that may be correlated to Method 24 or 24A test results.
  - e. Until such time as testing is conducted for the purpose of calculating the monthly weighted average mass of VOC per mass of yarn dye or lubricant as applied in the #1 Ilma line (YD1) or when Reference Method 24 or 24A VOC content data is not available, the VOC content of each dye or lubricant as supplied shall be based on formulation data as shown on the Material Safety Data Sheet (MSDS) or other vendor information. If the VOC content is given as a range, the maximum value shall be used.
- (9 VAC 5-80-110)
3. The permittee shall determine compliance with the VOC limit in Condition V.A.3 by calculating the monthly VOC percent by weight within the dyeing solution for the #2 Ilma line (YD2) using the following equation:

$$VOC_{wt} = \frac{\sum_{i=1}^n W_i M_i}{\sum_{i=1}^n M_i} \times 100\%$$

Where:

$VOC_{wt}$  = the VOC percent by weight within the dyeing solution applied each calendar month

$W_i$  = the weight fraction of VOC of each dyeing solution (i) applied during the calendar month

$M_i$  = the total mass, in pounds, of each dyeing solution (i) applied during the calendar month

(9 VAC 5-80-110)

4. The VOC content of each dye within the dyeing solution shall be determined using the following procedures:
  - a. The VOC content of each dye as supplied shall be determined by the permittee or the supplier initially or when the dye is modified or substituted using Reference Method 24 or 24A (40 CFR Part 60, Appendix A). Such content shall be used for purposes of calculating emissions and the monthly VOC percent by weight within the dyeing solution applied.
  - b. Each dye as supplied whose MSDS indicates a VOC content of 100% by weight may be assumed to be 100% VOC for the purpose of calculating emissions and the monthly VOC percent by weight within the dyeing solution applied in lieu of Reference Method 24 or 24A (40 CFR Part 60, Appendix A) testing.
  - c. The initial testing shall be conducted by the permittee or the supplier for each dye as supplied within 180 days of the effective date of this permit.
  - d. Each new dye as supplied received after the effective date of this permit or when the dye is modified or substituted shall be tested by the permittee or the supplier within 90 days of the receipt of shipment, modification or substitution. Each dye as supplied shipment received shall be clearly identified by a product formulation number that may be correlated to Method 24 or 24A test results.
  - e. Until such time as testing is conducted for the purpose of calculating the VOC percent by weight within the dyeing solution applied in the #2 Ilma line (YD2) or when Reference Method 24 or 24A VOC content data is not available, the VOC content of each dye as supplied shall be based on formulation data as shown on the Material Safety Data Sheet (MSDS) or other vendor information. If the VOC content is given as a range, the maximum value shall be used.

(9 VAC 5-80-110)

5. Each process steam line for the #1 Ilma line (YD1) shall be equipped with a steam flow meter and a 7-day circular chart recorder. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the #1 Ilma line (YD1) is operating.  
(9 VAC 5-80-110 and Condition 5 of 12/10/99 Permit)

6. The permittee shall determine compliance with the steam throughput limit in Condition V.A.10 by calculating weekly the average hourly steam throughput using the following equation:

$$STM_{avg} = \frac{\sum_{i=1}^7 M_i}{\sum_{i=1}^7 H_i}$$

Where:

$STM_{avg}$  = the average hourly steam throughput in pounds per hour

$M_i$  = the total mass, in pounds, of steam throughput during a 7-day period

$H_i$  = the total number of hours of operation during the corresponding 7-day period

(9 VAC 5-80-110)

7. The permittee shall perform weekly visible emissions inspections on each #1 Ilma line exhaust stack (YD1-1&2, and YD1-3) and #2 Ilma line exhaust stack (YD2-S2, YD2-D1, and YD2-D2) to determine the presence of visible emissions. If during the inspection visible emissions are observed, a visible emissions evaluation (VEE) shall be conducted in accordance with 40 CFR Part 60, Appendix A, EPA Method 9. The VEE shall be conducted for a minimum of six (6) minutes. If any of the observations exceed five percent (5%), the VEE shall be conducted for a total of sixty (60) minutes. If the 60-minute VEE indicates a violation of the standard, corrective action shall be taken. All observations, VEE results and corrective actions taken shall be recorded.  
(9 VAC 5-80-110)

8. The permittee shall conduct visible emissions inspections on the Ilma Sample line exhaust stack (YD3) and the Lanly dryer exhaust stack (YD4) in accordance with the following procedures and frequencies:
- At a minimum of once per week, the permittee shall determine the presence of visible emissions. If during the inspection visible emissions are observed, a visible emissions evaluation (VEE) shall be conducted in accordance with 40 CFR Part 60, Appendix A, EPA Method 9. The VEE shall be conducted for a minimum of six (6) minutes. If any of the observations exceed twenty percent (20%), the VEE shall be conducted for a total of sixty (60) minutes. If the 60-minute VEE indicates a violation of the standard, corrective action shall be taken.
  - All visible emissions inspections shall be performed when the equipment is operating.
  - If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for a particular stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

All observations, VEE results, and corrective actions taken shall be recorded.  
(9 VAC 5-80-110)

9. The permittee shall determine compliance with the hourly VOC emission limit in Condition V.A.17 by calculating the average hourly emissions from the #1 Ilma line (YD1) using the following equation:

$$E_{voc} = \frac{\left( \sum_{i=1}^n W_{dye,i} M_{dye,i} + \sum_{i=1}^n W_{lub,i} M_{lub,i} \right)}{H}$$

Where:

$E_{voc}$  = the average hourly VOC emissions in pounds per hour

$W_{dye,i}$  = the weight fraction of VOC of each yarn dye (i) applied during the calendar month

$M_{dye,i}$  = the total mass, in pounds, of each yarn dye (i) applied during the calendar month

$W_{lub,i}$  = the weight fraction of VOC of each yarn lubricant (i) applied during the calendar month

$M_{lub,i}$  = the total mass, in pounds, of each yarn lubricant (i) applied during the calendar month

H = the total number of hours of operation during the calendar month

(9 VAC 5-80-110)

10. The permittee shall determine compliance with the annual VOC emission limit in Condition V.A.17 by calculating the monthly emissions from the #1 Ilma line (YD1) using the following equation:

$$E_{voc} = \frac{\left( \sum_{i=1}^n W_{dye,i} M_{dye,i} + \sum_{i=1}^n W_{lub,i} M_{lub,i} \right)}{2000}$$

Where:

$E_{voc}$  = the total monthly VOC emissions in tons

$W_{dye,i}$  = the weight fraction of VOC of each yarn dye (i) applied during the calendar month

$M_{dye,i}$  = the total mass, in pounds, of each yarn dye (i) applied during the calendar month

$W_{lub,i}$  = the weight fraction of VOC of each yarn lubricant (i) applied during the calendar month

$M_{lub,i}$  = the total mass, in pounds, of each yarn lubricant (i) applied during the calendar month

Annual VOC emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110)

11. The permittee shall determine compliance with the hourly VOC emission limit in Condition V.A.18 by calculating the average hourly emissions from the #2 Ilma line (YD2) using the following equation:

$$E_{voc} = \frac{\sum_{i=1}^n W_i M_i}{H}$$

Where:

$E_{voc}$  = the average hourly VOC emissions in pounds per hour

$W_i$  = the weight fraction of VOC of each dyeing solution (i) applied during the calendar month

$M_i$  = the total mass, in pounds, of each dyeing solution (i) applied during the calendar month

$H$  = the total number of hours of operation during the calendar month

(9 VAC 5-80-110)

12. The permittee shall determine compliance with the annual VOC emission limit in Condition V.A.18 by calculating the monthly emissions from the #2 Ilma line (YD2) using the following equation:

$$E_{voc} = \frac{\sum_{i=1}^n W_i M_i}{2000}$$

Where:

$E_{voc}$  = the total monthly VOC emissions in tons

$W_i$  = the weight fraction of VOC of each dyeing solution (i) applied during the calendar month

$M_i$  = the total mass, in pounds, of each dyeing solution (i) applied during the calendar month

Annual VOC emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110)

13. The permittee shall determine compliance with the hourly VOC emission limit in Condition V.A.19 by calculating the average hourly emissions from the Lanly dryer (YD4) using the following equation:

$$E_{voc} = \frac{\sum_{i=1}^n W_i M_i}{H}$$

Where:

$E_{voc}$  = the average hourly VOC emissions in pounds per hour

$W_i$  = the weight fraction of VOC of each dye (i) applied to the yarn sock dried in the Lanly dryer during the calendar month

$M_i$  = the total mass, in pounds, of each dye (i) applied to the yarn sock dried in the Lanly dryer during the calendar month

$H$  = the total number of hours of operation during the calendar month

(9 VAC 5-80-110)

14. The permittee shall determine compliance with the annual VOC emission limit in Condition V.A.19 by calculating the monthly emissions from the Lanly dryer (YD4) using the following equation:

$$E_{voc} = \frac{\sum_{i=1}^n W_i M_i}{2000}$$

Where:

$E_{voc}$  = the total monthly VOC emissions in tons

$W_i$  = the weight fraction of VOC of each dye (i) applied to the yarn sock dried in the Lanly dryer (YD4) during the calendar month

$M_i$  = the total mass, in pounds, of each dye (i) applied to the yarn sock dried in the Lanly dryer (YD4) during the calendar month

Annual VOC emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110)

### C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Valley Region. These records shall include, but are not limited to:

1. Weekly and monthly hours of operation of the #1 Ilma line (YD1).

2. Monthly hours of operation of the #2 Ilma line (YD2) and the Lanly dryer (YD4).
3. Annual hours of operation of the #1 Ilma line (YD1), calculated monthly as the sum of each consecutive twelve (12) month period.
4. Monthly and annual throughput of carpet yarn dye (in pounds) used in the #1 Ilma line (YD1). Annual throughput shall be calculated monthly as the sum of each consecutive twelve (12) month period.
5. Monthly and annual throughput of carpet yarn lubricant (in pounds) used in the #1 Ilma line (YD1). Annual throughput shall be calculated monthly as the sum of each consecutive twelve (12) month period.
6. The daily, weekly and monthly throughput of dyeing solution used in the #2 Ilma line (YD2).
7. The daily, weekly and monthly throughput of material dyed in the #2 Ilma line (YD2).
8. Monthly and annual throughput of dye (in pounds) for the Lanly dryer (YD4). Annual throughput shall be calculated monthly as the sum of each consecutive twelve (12) month period.
9. Hourly throughput of process steam (in pounds) used by the #1 Ilma line (YD1), calculated as a weekly average.
10. Hourly and annual VOC emissions (in pounds and tons, respectively) from the #1 Ilma line (YD1). Hourly emissions shall be calculated as a monthly average. Annual emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period.
11. Hourly and annual VOC emissions (in pounds and tons, respectively) from the #2 Ilma line (YD2). Hourly emissions shall be calculated as a monthly average. Annual emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period.
12. Hourly and annual VOC emissions (in pounds and tons, respectively) from the Lanly dryer (YD4). Hourly emissions shall be calculated as a monthly average. Annual emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period.
13. VOC content of each carpet yarn dye and lubricant (in pounds per pound of yarn dye or lubricant) used in the #1 Ilma line (YD1), calculated as a monthly weighted average.

14. An analysis of the dyeing solution having the highest concentration of volatile organic compounds by weight to be used in the #2 Ilma line (YD2) for each month. This analysis shall include the concentration by weight of each VOC within the dyeing solution.
15. Material Safety Data Sheets (MSDS) and product formulation data including total and individual mass VOC content, in %, as applicable, for each dyeing solution used in the #2 Ilma line (YD2).
16. MSDS or other vendor information showing VOC content, HAP content, water content and solids content for each carpet yarn dye component and carpet yarn lubricant component used in the #1 Ilma line (YD1).
17. MSDS or other vendor information showing VOC content, HAP content, water content and solids content for each dye component used in the Ilma sample line (YD3) and pack kettles (YD5).
18. Operation and control device monitoring records for the #1 Ilma line (YD1) process steam flow meter(s) and 7-day circular chart recorder(s).
19. Results of all stack tests, visible emissions evaluations and performance evaluations for the #1 Ilma line (YD1).
20. Service and maintenance records for the #2 Ilma line (YD2).
21. Records of any reference method testing that is performed under Conditions V.B.2 and V.B.4.
22. Inspection records as required by Conditions V.B.7 and V.B.8.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110, Condition 16 of 12/10/99 Permit and Part II - Condition 3 of 12/12/90 Permit)

#### **D. Testing**

1. The #1 Ilma line (YD1), #2 Ilma line (YD2) and the Lanly dryer (YD4), shall be constructed so as to allow for emissions testing upon reasonable notice at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-80-110, Condition 17 of 12/10/99 Permit, Part II - Condition 2 of 12/12/90 Permit and Part II - Condition 3 of 7/10/86 Permit)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 18, 25, 25a
VOC Content	EPA Methods 24, 24a
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

#### **E. Reporting**

The permittee shall notify the Director, Valley Region, prior to changing the dye formulation which may increase or change the VOC content of the dye used in the #2 Ilma line (YD2).

(9 VAC 5-80-110 and Part I - Condition 9 of 12/12/90 Permit)

## **VI. Process Equipment Requirements – Yarn Processing Line (Heat Setting) (HS1)**

### **A. Limitations**

1. Particulate matter emissions from the #1 Suessen heat set line (HS1) shall be controlled by an oil mist collector. The oil mist collector shall be provided with adequate access for inspection and shall be in operation when the processes are operating.  
(9 VAC 5-80-110 and Condition 3 of 11/8/02 Permit, as amended 6/29/05)
2. The oil mist collector cooling coil shall maintain a set point temperature of 175°F.  
(9 VAC 5-80-110 and Condition 4 of 11/8/02 Permit, as amended 6/29/05)
3. The oil mist collector cooling coil outlet air temperature shall not exceed 190°F.  
(9 VAC 5-80-110 and Condition 5 of 11/8/02 Permit, as amended 6/29/05)
4. The exhaust stack (HS1) for the #1 Suessen heat set line shall be a minimum of 41 feet above ground level with an unobstructed vertical discharge in order to comply with the ambient air quality standards for PM-10.  
(9 VAC 5-80-110 and Condition 11 of 11/8/02 Permit, as amended 6/29/05)
5. The throughput of yarn through the #1 Suessen heat set line shall not exceed 119 pounds per hour.  
(9 VAC 5-80-110 and Condition 12 of 11/8/02 Permit, as amended 6/29/05)
6. Visible emissions from the exhaust stack (HS1) for the #1 Suessen heat set line shall not exceed ten percent (10%) opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.  
(9 VAC 5-80-110, 9 VAC 5-50-80 and Condition 14 of 11/8/02 Permit, as amended 6/29/05)
7. Emissions from the exhaust stack (HS1) for the #1 Suessen heat set line shall not exceed the limits specified below:

Particulate Matter	0.10 lbs/hr
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PM-10	0.10 lbs/hr
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(9 VAC 5-80-110 and Condition 13 of 11/8/02 Permit, as amended 6/29/05)

8. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices and process equipment which affect such emissions:
  - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
  - b. Maintain an inventory of spare parts.
  - c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
  - d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of training provided including the names of trainees, the date of training and the nature of the training.

(9 VAC 5-80-110 and Condition 20 of 11/8/02 Permit, as amended 6/29/05)

#### **B. Monitoring and Recordkeeping**

1. The oil mist collector shall be equipped with devices to continuously measure the differential pressure drop across the filter, the cooling coil set point temperature and the cooling coil inlet air temperature. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the control device is operating.  
(9 VAC 5-80-110 and Condition 6 of 11/8/02 Permit, as amended 6/29/05)
2. The oil mist collector shall be equipped with devices to continuously measure and record the cooling coil outlet air temperature. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the control device is operating.  
(9 VAC 5-80-110 and Condition 7 of 11/8/02 Permit, as amended 6/29/05)

3. The oil mist collector monitoring devices used to continuously measure the differential pressure drop across the filter, the cooling coil set point temperature and the cooling coil inlet air temperature shall be observed by the permittee with a frequency of not less than once per day. The permittee shall keep a log of the observations of the oil mist collector monitoring devices.  
(9 VAC 5-80-110 and Condition 8 of 11/8/02 Permit, as amended 6/29/05)
4. The oil mist collector monitoring devices used to continuously measure and record the cooling coil outlet air temperature shall be observed by the permittee with a frequency of not less than once per day. The permittee shall keep a log of the observations of the oil mist collector monitoring devices.  
(9 VAC 5-80-110 and Condition 9 of 11/8/02 Permit, as amended 6/29/05)
5. The permittee shall conduct a weekly visible emissions inspection on the exhaust stack (HS1) for the #1 Suessen heat set line. Each inspection shall include an observation of the presence of visible emissions and the pressure drop across the oil mist collector filter. If during the inspection visible emissions are observed, a visible emissions evaluation (VEE) shall be conducted in accordance with 40 CFR Part 60, Appendix A, EPA Method 9, unless timely corrective action is taken such that the stack resumes operation with no visible emissions. The VEE shall be conducted for a minimum of six (6) minutes. If any of the observations exceed ten percent (10%), the VEE shall be conducted for a total of sixty (60) minutes. All observations, VEE results, and corrective actions taken shall be recorded.  
(9 VAC 5-80-110)
6. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Valley Region. These records shall include, but are not limited to:
  - a. Daily observations of the differential pressure drop across the oil mist collector filter, the oil mist collector cooling coil set point temperature and the oil mist collector cooling coil inlet and outlet air temperatures.
  - b. Continuous measurements of the oil mist collector cooling coil outlet air temperature.
  - c. Hourly throughput of yarn, in pounds, through the #1 Suessen heat set line (HS1).
  - d. Training and all scheduled and non-scheduled maintenance as required by Condition VI.A.8.
  - e. All stack tests, VEEs and performance evaluations.

- f. The pollutant-specific emission factors and equations used to demonstrate compliance with Condition VI.A.7.
- g. Inspection records as required by Conditions VI.B.3, VI.B.4 and VI.B.5.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110 and Condition 15 of 11/8/02 Permit, as amended 6/29/05)

### C. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time using appropriate methods. This includes constructing the facility such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing stack or duct that is free from cyclonic flow. Test ports shall be provided when requested at the appropriate locations or in accordance with the applicable performance specification (reference 40 CFR Part 60, Appendix B).  
(9 VAC 5-80-110 and Condition 10 of 11/8/02 Permit, as amended 6/29/05)
2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method
PM/PM-10	EPA Methods 5, 17 (40 CFR Part 60, Appendix A) EPA Methods 201, 202 (40 CFR Part 51, Appendix M)
Visible Emission	EPA Method 9 (40 CFR Part 60, Appendix A)

(9 VAC 5-80-110)

### D. Reporting

The permittee shall furnish notification to the Director, Valley Region, of the intention to shutdown or bypass, or both, air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour, at least 24 hours prior to the shutdown. The notification shall include, but is not limited to, the following information:

1. Identification of the specific process to be taken out of service, as well as its location and registration number;
2. The expected length of time that the air pollution control equipment will be out of service;

3. The nature and quantity of emissions of air pollutants likely to occur during the shutdown period;
4. Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage.

(9 VAC 5-80-110 and Condition 16 of 11/8/02 Permit, as amended 6/29/05)

## **VII. Process Equipment Requirements – Carpet Dye Lines (CD1, CD3 and CD4)**

### **A. Limitations**

1. Visible emissions from each Kuster dyeing stack (CD1-D1 – CD1-D5 and CD1-S), Atmospheric Beck dyeing stack (CD3-1 and CD3-2) and Piece dryer stack (CD4-1 – CD4-5) shall not exceed twenty percent (20%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed thirty percent (30%) opacity.  
(9 VAC 5-50-80, 9 VAC 5-80-110 and 7/17/74 Permit)

### **B. Monitoring and Recordkeeping**

1. The permittee shall conduct a visible emissions inspection on each Kuster dyeing stack (CD1-D1 – CD1-D5 and CD1-S), Atmospheric Beck dyeing stack (CD3-1 and CD3-2) and Piece dryer stack (CD4-1 – CD4-5) in accordance with the following procedures and frequencies:
  - a. At a minimum of once per week, the permittee shall determine the presence of visible emissions. If during the inspection visible emissions are observed, a visible emissions evaluation (VEE) shall be conducted in accordance with 40 CFR Part 60, Appendix A, EPA Method 9. The VEE shall be conducted for a minimum of six (6) minutes. If any of the observations exceed twenty percent (20%), the VEE shall be conducted for a total of sixty (60) minutes. If the 60-minute VEE indicates a violation of the standard, corrective action shall be taken.
  - b. All visible emissions inspections shall be performed when the equipment is operating.
  - c. If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for a particular stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

All observations, VEE results, and corrective actions taken shall be recorded.  
(9 VAC 5-80-110)

2. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Valley Region. These records shall include, but are not limited to, inspection records as required by Condition VII.B.1. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.  
(9 VAC 5-80-110)

**C. Testing**

If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

## **VIII. Process Equipment Requirements – Carpet Backing Lines (L1, LCS, VAES, PVC1, PVC2, PVCS, HM1, HMM and RHMM)**

### **A. Limitations**

1. Particulate emissions from the latex line (L1), latex calcium carbonate filler silo (LCS), PVC foamback line (PVC2), calcium carbonate storage silo (PVCS), hot melt mix tanks (HMM) and remote hot melt mix tank (RHMM) shall not exceed the process weight limit as determined by the following equation:

$$E = 4.10P^{0.67}$$

Where:

E = emission rate in lbs/hr

P = process weight rate in tons/hr

(9 VAC 5-40-260 and 9 VAC 5-80-110)

2. Particulate emissions from the VAE latex filler silo (VAES) shall not exceed the process weight limit as determined by the following equation:

$$E = 55.0P^{0.11}-40$$

Where:

E = emission rate in lbs/hr

P = process weight rate in tons/hr

(9 VAC 5-40-260 and 9 VAC 5-80-110)

3. Particulate emissions from the latex line (L1) shall be controlled by a wet electrostatic precipitator. The wet electrostatic precipitator shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The wet electrostatic precipitator shall be provided with adequate access for inspection.  
(9 VAC 5-80-110)

4. Particulate emissions from the latex calcium carbonate filler silo (LCS) and return air from the transfer of filler from the latex calcium carbonate filler silo to the SBR latex mixer shall be controlled by a fabric filter. The fabric filter shall be provided with adequate access for inspection.  
(9 VAC 5-80-110)

5. Particulate emissions from the hot melt mix tanks filler line cyclone exhaust (HMM) and remote hot melt mix tank filler line cyclone exhaust (RHMM) shall be controlled by a fabric filter. The fabric filter shall be provided with adequate access for inspection.  
(9 VAC 5-80-110)
6. Particulate matter emissions from the calcium carbonate storage silo (PVCS) shall be controlled by a fabric filter. The fabric filter shall be provided with adequate access for inspection and shall be in operation when the calcium carbonate storage silo (PVCS) is operating.  
(9 VAC 5-80-110 and Condition 5 of 3/22/02 Permit, as amended 6/29/05)
7. Particulate emissions from the filling of the VAE latex filler silo (VAES) and return air from the transfer of filler from the VAE latex filler silo to the VAE latex mixer shall be controlled by a fabric filter. The fabric filter shall be provided with adequate access for inspection.  
(9 VAC 5-80-110 and Condition 3 of 12/5/97 Permit)
8. Carbon monoxide emissions from the PVC foamback line equipped with a 1.5 MMBtu/hr curing oven (PVC2) are limited to 30.8 lbs of azodicarbonamide per 1000.0 lbs of plastisol as applied, calculated daily as a weighted average.  
(9 VAC 5-80-110 and Condition 3 of 3/22/02 Permit, as amended 6/29/05)
9. Particulate matter emissions from the PVC carpet backing line (PVC1) and the PVC foamback line equipped with a 1.5 MMBtu/hr curing oven (PVC2) shall be controlled by a coalescing filter. The coalescing filter shall be provided with adequate access for inspection and shall be in operation when one or both processes are operating.  
(9 VAC 5-80-110 and Condition 4 of 3/22/02 Permit, as amended 6/29/05)
10. The VAE latex filler silo (VAES) operation shall process no more than 130,000 pounds per day, calculated daily as the sum of each consecutive 24-hour period.  
(9 VAC 5-80-110 and Condition 5 of 12/5/97 Permit)
11. The annual throughput of calcium carbonate for the VAE latex filler silo (VAES) shall not exceed 4,420 tons, calculated monthly as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-80-110 and Condition 6 of 12/5/97 Permit)
12. The calcium carbonate storage silo (PVCS) shall process no more than 120.0 tons per day, calculated daily.  
(9 VAC 5-80-110 and Condition 8 of 3/22/02 Permit, as amended 6/29/05)

13. The calcium carbonate storage silo (PVCS) shall process no more than 15,500.0 tons per year, calculated monthly as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-80-110 and Condition 9 of 3/22/02 Permit, as amended 6/29/05)
14. The throughput of plastisol formula to the PVC foamback line equipped with a 1.5 MMBtu/hr curing oven (PVC2) shall not exceed 8.4 tons per day, calculated daily.  
(9 VAC 5-80-110 and Condition 10 of 3/22/02 Permit, as amended 6/29/05)
15. The throughput of plastisol formula to the PVC foamback line equipped with a 1.5 MMBtu/hr curing oven (PVC2) shall not exceed 3,080.0 tons per year, calculated monthly as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-80-110 and Condition 11 of 3/22/02 Permit, as amended 6/29/05)
16. The throughput of plastisol formula to the PVC carpet backing line (PVC1) shall not exceed 283.5 tons per day, calculated daily.  
(9 VAC 5-80-110 and Condition 12 of 3/22/02 Permit, as amended 6/29/05)
17. The throughput of plastisol formula to the PVC carpet backing line (PVC1) shall not exceed 51,328.0 tons per year, calculated monthly as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-80-110 and Condition 13 of 3/22/02 Permit, as amended 6/29/05)
18. The approved fuel for the PVC foamback line equipped with a 1.5 MMBtu/hr curing oven (PVC2) is natural gas. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-110 and Condition 14 of 3/22/02 Permit, as amended 6/29/05)
19. Visible emissions from the latex line stack (L1) and latex calcium carbonate filler silo stack (LCS) shall not exceed twenty percent (20%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed sixty percent (60%) opacity.  
(9 VAC 5-40-80 and 9 VAC 5-80-110)
20. Visible emissions from the hot melt line stacks (HM1-PC and HM1-MC), hot melt mix tanks vent (HMM-vent), remote hot melt mix tank vent (RHMM-vent), hot melt mix tanks filler line cyclone exhaust stack (HMM) and remote hot melt mix tank filler line cyclone exhaust stack (RHMM) shall not exceed twenty percent (20%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed thirty percent (30%) opacity.  
(9 VAC 5-50-80 and 9 VAC 5-80-110)

21. Visible emissions from the VAE latex filler silo fabric filter (VAES) exhaust shall not exceed five percent (5%) opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.

(9 VAC 5-80-110, 9 VAC 5-50-80 and Condition 7 of 12/5/97 Permit)

22. Visible emissions from the PVC carpet backing line (PVC1) and the PVC foamback line equipped with a 1.5 MMBtu/hr curing oven (PVC2) shall not exceed five percent (5%) opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.

(9 VAC 5-80-110, 9 VAC 5-50-80 and Condition 17 of 3/22/02 Permit, as amended 6/29/05)

23. Visible emissions from the calcium carbonate storage silo (PVCS) shall not exceed five percent (5%) opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.

(9 VAC 5-80-110, 9 VAC 5-50-80 and Condition 18 of 3/22/02 Permit, as amended 6/29/05)

24. Emissions from the operation of the PVC foamback line equipped with a 1.5 MMBtu/hr curing oven (PVC2) shall not exceed the limits specified below:

Carbon Monoxide	15.98 lbs/day	2.92 tons/yr
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Annual emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110 and Condition 15 of 3/22/02 Permit, as amended 6/29/05)

25. Emissions from the operation of the PVC carpet backing line (PVC1) shall not exceed the limits specified below:

Particulate Matter	0.65 lbs/hr	1.50 tons/yr
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PM-10	0.65 lbs/hr	1.50 tons/yr
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Volatile Organic Compounds		5.81 tons/yr
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Annual emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110 and Condition 16 of 3/22/02 Permit, as amended 6/29/05)

26. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of training provided including the names of trainees, the date of the training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be available to DEQ personnel upon request.

(9 VAC 5-80-110, Condition 25 of 3/22/02 Permit, as amended 6/29/05 and Conditions 13 and 14 of 12/5/97 Permit)

## **B. Monitoring**

1. The latex line wet electrostatic precipitator (L1) shall be equipped with a device to continuously measure and record the voltage. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.  
(9 VAC 5-80-110)
2. The latex calcium carbonate filler silo fabric filter (LCS), hot melt mix tanks filler line cyclone exhaust fabric filter (HMM) and remote hot melt mix tank filler line cyclone exhaust fabric filter (RHMM) shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.  
(9 VAC 5-80-110)
3. The VAE latex filler silo fabric filter (VAES) shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.  
(9 VAC 5-80-110 and Condition 3 of 12/5/97 Permit)

4. The coalescing filter (PVC1) shall be equipped with a device to continuously measure the differential pressure drop across the coalescing filter. The monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the coalescing filter is operating.  
(9 VAC 5-80-110 and Condition 6 of 3/22/02 Permit, as amended 6/29/05)
5. The calcium carbonate storage silo fabric filter (PVCS) shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the fabric filter is operating.  
(9 VAC 5-80-110 and Condition 7 of 3/22/02 Permit, as amended 6/29/05)
6. The permittee shall conduct a weekly visible emissions inspection on the latex line stack (L1). Each inspection shall include an observation of the presence of visible emissions and the voltage of the wet electrostatic precipitator. If during the inspection visible emissions are observed, a visible emissions evaluation (VEE) shall be conducted in accordance with 40 CFR Part 60, Appendix A, EPA Method 9, unless timely corrective action is taken such that the stack resumes operation with no visible emissions. The VEE shall be conducted for a minimum of six (6) minutes. If any of the observations exceed twenty percent (20%), the VEE shall be conducted for a total of sixty (60) minutes. All observations, VEE results, and corrective actions taken shall be recorded.  
(9 VAC 5-80-110)
7. The permittee shall conduct a weekly visible emissions inspection on the latex calcium carbonate filler silo stack (LCS), the hot melt mix tanks filler line cyclone exhaust stack (HMM) and remote hot melt mix tank filler line cyclone exhaust stack (RHMM). Each inspection shall include an observation of the presence of visible emissions and the pressure drop across each fabric filter (LCS, HMM and RHMM). If during the inspection visible emissions are observed, a visible emissions evaluation (VEE) shall be conducted in accordance with 40 CFR Part 60, Appendix A, EPA Method 9, unless timely corrective action is taken such that the stack resumes operation with no visible emissions. The VEE shall be conducted for a minimum of six (6) minutes. If any of the observations exceed twenty percent (20%), the VEE shall be conducted for a total of sixty (60) minutes. All observations, VEE results, and corrective actions taken shall be recorded.  
(9 VAC 5-80-110)

8. The permittee shall conduct a weekly visible emissions inspection on the VAE latex filler silo stack (VAES) and calcium carbonate storage silo stack (PVCS). Each inspection shall include an observation of the presence of visible emissions and the pressure drop across each fabric filter (VAES and PVCS). If during the inspection visible emissions are observed, a visible emissions evaluation (VEE) shall be conducted in accordance with 40 CFR Part 60, Appendix A, EPA Method 9, unless timely corrective action is taken such that the stack resumes operation with no visible emissions. The VEE shall be conducted for a minimum of six (6) minutes. If any of the observations exceed five percent (5%), the VEE shall be conducted for a total of sixty (60) minutes. All observations, VEE results, and corrective actions taken shall be recorded.  
(9 VAC 5-80-110)
9. The permittee shall conduct a weekly visible emissions inspection on the PVC carpet backing line stack (PVC1) and the PVC foamback line stack (PVC2). Each inspection shall be performed when the equipment is operating and shall include an observation of the presence of visible emissions and the pressure drop across the coalescing filter (PVC1). If during the inspection visible emissions are observed, a visible emissions evaluation (VEE) shall be conducted in accordance with 40 CFR Part 60, Appendix A, EPA Method 9, unless timely corrective action is taken such that the stack resumes operation with no visible emissions. The VEE shall be conducted for a minimum of six (6) minutes. If any of the observations exceed five percent (5%), the VEE shall be conducted for a total of sixty (60) minutes. All observations, VEE results, and corrective actions taken shall be recorded.  
(9 VAC 5-80-110)
10. The permittee shall determine compliance with the daily carbon monoxide emission limit in Condition VIII.A.24 by calculating the daily emissions from the PVC foamback line equipped with a 1.5 MMBtu/hr curing oven (PVC2) using the following equation:

$$E_{co} = C_{azo} T_{plast} EF_{co}$$

Where:

$E_{co}$  = the daily carbon monoxide emissions in pounds per day

$C_{azo}$  = the daily average azodicarbonamide content contained in the plastisol formula in pounds per 1000 pounds of plastisol applied

$T_{plast}$  = the daily throughput, in 1000 pounds, of plastisol formula applied

$EF_{co}$  = the DEQ-approved emission factor in pounds of carbon monoxide per pound of azodicarbonamide

(9 VAC 5-80-110)

11. The permittee shall determine compliance with the annual carbon monoxide emission limit in Condition VIII.A.24 by calculating the monthly emissions from the PVC foamback line equipped with a 1.5 MMBtu/hr curing oven (PVC2) using the following equation:

$$E_{co} = \frac{\sum_{i=1}^n C_{azo,i} T_{plast,i} EF_{co}}{2000}$$

Where:

$E_{co}$  = the total monthly carbon monoxide emissions in tons

$C_{azo,i}$  = the average azodicarbonamide content contained in the plastisol formula, in pounds per 1000 pounds of plastisol applied, each day (i) during the calendar month

$T_{plast,i}$  = the throughput, in 1000 pounds, of plastisol formula applied each day (i) during the calendar month

$EF_{co}$  = the DEQ-approved emission factor in pounds of carbon monoxide per pound of azodicarbonamide

Annual carbon monoxide emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-80-110)

12. The permittee shall determine compliance with the hourly particulate matter emission limit in Condition VIII.A.25 by calculating daily the average hourly emissions from the PVC carpet backing line (PVC1) using the following equation:

$$E_{PM} = \left( \frac{M \times EF_{plast}}{H} \right) \left( \frac{100 - CE_{cf}}{100} \right)$$

Where:

$E_{PM}$  = the daily average hourly particulate matter emissions in pounds per hour

$M$  = the total throughput of plastisol formula, in pounds, used in the PVC carpet backing line (PVC1) during the calendar day

$H$  = the total number of hours of operation for the PVC carpet backing line (PVC1) during the calendar day

$EF_{plast}$  = the DEQ-approved emission factor in pounds of particulate per pound of plastisol

$CE_{cf}$  = control efficiency of the coalescing filter

(9 VAC 5-80-110)

13. The permittee shall determine compliance with the annual particulate matter emission limit in Condition VIII.A.25 by calculating the monthly emissions from the PVC carpet backing line (PVC1) using the following equation:

$$E_{PM} = \left( \frac{M \times EF_{plast}}{2000} \right) \left( \frac{100 - CE_{cf}}{100} \right)$$

Where:

$E_{PM}$  = the monthly particulate matter emissions in tons

$M$  = the total throughput of plastisol formula, in pounds, used in the PVC carpet backing line (PVC1) during the calendar month

$EF_{plast}$  = the DEQ-approved emission factor in pounds of particulate per pound of plastisol

$CE_{cf}$  = control efficiency of the coalescing filter

Annual particulate matter emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110)

### C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Valley Region. These records shall include, but are not limited to:

1. Daily and annual throughput of calcium carbonate for the VAE latex filler silo (VAES). Daily throughput shall be calculated daily as the sum of each consecutive 24-hour period. Annual throughput shall be calculated monthly as the sum of each consecutive twelve (12) month period.
2. Air pollution control equipment training provided and all scheduled and non-scheduled maintenance as required by Condition VIII.A.26.

3. Daily hours of operation of the PVC carpet backing line (PVC1) and the PVC foamback line equipped with a 1.5 MMBtu/hr curing oven (PVC2).
4. Daily and annual throughput of plastisol formula (in tons) used in the PVC carpet backing line (PVC1). Annual throughput shall be calculated monthly as the sum of each consecutive twelve (12) month period.
5. Daily and annual throughput of latex (in tons) used in the PVC carpet backing line (PVC1). Annual throughput shall be calculated monthly as the sum of each consecutive twelve (12) month period.
6. Daily and annual throughput of plastisol formula (in tons) used in the PVC foamback line equipped with a 1.5 MMBtu/hr curing oven (PVC2). Annual throughput shall be calculated monthly as the sum of each consecutive twelve (12) month period.
7. Daily and annual carbon monoxide emissions (in pounds and tons, respectively) from the PVC foamback line equipped with a 1.5 MMBtu/hr curing oven (PVC2). Annual emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period.
8. The total amount of azodicarbonamide (in pounds) added to the plastisol formula and the total amount of plastisol formula (in pounds) the azodicarbonamide is added to, calculated on a daily basis.
9. Daily average azodicarbonamide content contained in the plastisol formula, reported in pounds per 1000 pounds of plastisol formula applied in the PVC foamback line equipped with a 1.5 MMBtu/hr curing oven (PVC2).
10. Hourly particulate matter and PM-10 emissions (in pounds) from the PVC carpet backing line (PVC1), calculated as a daily average.
11. Annual particulate matter, PM-10 and volatile organic compound emissions (in tons) from the PVC carpet backing line (PVC1). Annual emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period.
12. Material Safety Data Sheets (MSDS) or other vendor information showing VOC content, HAP content, water content, CO content and solids content for each component of the plastisol formula.
13. Material Safety Data Sheets (MSDS) or other vendor information showing VOC content, HAP content, water content and solids content for each component of the latex.
14. Daily and annual throughput of calcium carbonate (in tons) used in the calcium carbonate storage silo (PVCS). Annual throughput shall be calculated monthly as the sum of each consecutive twelve (12) month period.

15. Inspection records as required by Conditions VIII.B.6, VIII.B.7, VIII.B.8 and VIII.B.9.
16. The DEQ-approved, pollutant-specific emission factors and the equations used to demonstrate compliance with Conditions VIII.A.24 and VIII.A.25.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110, Condition 9 of 12/5/97 Permit and Condition 19 of 3/22/02 Permit, as amended 6/29/05)

#### **D. Testing**

1. The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. Test ports shall be provided at the appropriate locations when requested.  
(9 VAC 5-80-110, Condition 4 of 12/5/97 Permit and Condition 20 of 3/22/02 Permit, as amended 6/29/05)
2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 18, 25, 25a
VOC Content	EPA Methods 24, 24a
CO	EPA Method 10
PM/PM-10	EPA Methods 5, 17
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

#### **E. Reporting**

The permittee shall furnish notification to the Director, Valley Region, of the intention to shut down or bypass, or both, air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour, at least 24 hours prior to the shutdown. The notification shall include, but is not limited to, the following information:

1. Identification of the air pollution control equipment to be taken out of service, as well as its location and registration number;
2. The expected length of time that the air pollution control equipment will be out of service;

3. The nature and quantity of emissions of air pollutants likely to occur during the shutdown period;
4. Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage.

(9 VAC 5-80-110 and Condition 21 of 3/22/02 Permit, as amended 6/29/05)

## **IX. Hazardous Air Pollutant Conditions**

Unless the permittee obtains federally enforceable limits on its facility-wide emissions of hazardous air pollutants (HAPs) to below major-source thresholds prior to the specified date, the following federal requirements, derived from 40 CFR Part 63, will apply. For each standard, “requirements” include all control, operational, work practice, monitoring, recordkeeping, reporting, and testing requirements, as applicable.

### **A. Limitations**

1. Except where this permit is more restrictive, the fabric and other textiles printing, coating and dyeing operations shall comply with the requirements of 40 CFR Part 63, Subpart OOOO (National Emission Standards for Hazardous Air Pollutants for Printing, Coating, and Dyeing of Fabrics and Other Textiles) no later than May 29, 2006.  
(9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110 and 40 CFR 63, Subpart OOOO)
2. Except where this permit is more restrictive, the Babcock and Wilcox boilers (B5 and B6) and the Erie City VC boiler (B7) shall comply with the requirements of 40 CFR Part 63, Subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters) no later than September 13, 2007.  
(9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110 and 40 CFR 63, Subpart DDDDD)

### **B. Recordkeeping**

1. Except where this permit is more restrictive, the permittee shall record and retain all information necessary to determine compliance with 40 CFR Part 63, Subpart OOOO.  
(9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110 and 40 CFR 63, Subpart OOOO)
2. Except where this permit is more restrictive, the permittee shall record and retain all information necessary to determine compliance with 40 CFR Part 63, Subpart DDDDD.  
(9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110 and 40 CFR 63, Subpart DDDDD)

### **C. Reporting**

1. All applicable notifications required by 40 CFR 63.7(b) and (c), 63.8 (f)(4) and 63.9 (b) through (e) and (h) and 40 CFR Part 63, Subpart OOOO, shall be provided by the

dates specified, unless the permittee obtains federally enforceable limits on its facility-wide emissions of HAPs to below major-source thresholds prior to the notification dates specified. Notifications shall be submitted to the Director, Valley Region. A copy of each notification shall be provided to EPA Region III, to the attention of the Printing, Coating, and Dyeing of Fabrics and Other Textiles NESHAP Coordinator, at the following address:

EPA Region III  
Air Enforcement Branch  
3AP12  
1650 Arch Street  
Philadelphia PA 19103

(9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110 and 40 CFR 63, Subpart OOOO)

2. All applicable notifications required by 40 CFR 63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) and 40 CFR Part 63, Subpart DDDDD, shall be provided by the dates specified, unless the permittee obtains federally enforceable limits on its facility-wide emissions of HAPs to below major-source thresholds prior to the notification dates specified. Notifications shall be submitted to the Director, Valley Region. A copy of each notification shall be provided to EPA Region III, to the attention of the Industrial/Commercial/Institutional Boilers and Process Heaters NESHAP Coordinator, at the following address:

EPA Region III  
Air Enforcement Branch  
3AP12  
1650 Arch Street  
Philadelphia, PA 19103

(9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110 and 40 CFR 63, Subpart DDDDD)

**X. Insignificant Emission Units**

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
DINP1 and DINP2	Diisononyl phthalate Storage Tanks	9 VAC 5-80-720 B	VOC	10,000 gallons each
HS2	Superba Heat Set Lines (10)	9 VAC 5-80-720 B	VOC	450 lbs yarn/hr
HS3	Superba Heat Set Lines with Spectradye (4)	9 VAC 5-80-720 B	VOC	150 lbs yarn/hr
CS	Carpet Shearing (5)	9 VAC 5-80-720 B	PM-10	
WWTP	Wastewater Treatment Plant	9 VAC 5-80-720 B	VOC	
-	Fork Trucks	9 VAC 5-80-720 B	VOC, PM-10	
Pellet	Pellet Silos	9 VAC 5-80-720 B	PM-10	
YP	Yarn Twisting, Coning, Knitting, etc.	9 VAC 5-80-720 B	VOC, PM-10	
-	Maintenance Tools (drills, etc.)	9 VAC 5-80-720 B	PM-10	
SST	Standafen CST Storage Tank	9 VAC 5-80-720 B	VOC	3,000 gallons
SR400	SR400 Storage Tank	9 VAC 5-80-720 B	VOC	3,000 gallons
-	Dye Mixers	9 VAC 5-80-720 B	VOC	
CD2	Jet Beck Carpet Dyeing	9 VAC 5-80-720 B	VOC	
PVC1	PVC Oven Gas-Fired Burners (15)	9 VAC 5-80-720 C	VOC, PM-10, NO <sub>x</sub> , SO <sub>2</sub> , CO	364,000 Btu/hr each
PVC1	PVC Tile Line Singer	9 VAC 5-80-720 C	VOC, PM-10, NO <sub>x</sub> , SO <sub>2</sub> , CO	700,000 Btu/hr
FP	Diesel Fire Pump	9 VAC 5-80-720 B	VOC, PM-10, NO <sub>x</sub> , SO <sub>2</sub> , CO	
PW	Parts Washers	9 VAC 5-80-720 B	VOC	
AshS	Ash Silo	9 VAC 5-80-720 B	PM-10	
CT	Cooling Towers (3)	9 VAC 5-80-720 B	VOC, PM-10	
SLD	Self Lock Dryer	9 VAC 5-80-720 B	VOC, PM-10, NO <sub>x</sub> , SO <sub>2</sub> , CO	1.5 MMBtu/hr
SK	R&D Sample Kuster	9 VAC 5-80-720 B	VOC	12 ft/min (3' width)
L-R&D	R&D sample laminator	9 VAC 5-80-720 B	VOC	2.22 yd <sup>2</sup> /min

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

## **XI. Permit Shield & Inapplicable Requirements**

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
None identified		

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.  
(9 VAC 5-80-140)

## **XII. General Conditions**

### **A. Federal Enforceability**

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.

(9 VAC 5-80-110 N)

### **B. Permit Expiration**

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
5. The protection under subsections F.1 and F.5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

### **C. Recordkeeping and Reporting**

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
  - a. The date, place as defined in the permit, and time of sampling or measurements.
  - b. The date(s) analyses were performed.
  - c. The company or entity that performed the analyses.
  - d. The analytical techniques or methods used.
  - e. The results of such analyses.
  - f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
- b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

(1) Exceedance of emissions limitations or operational restrictions;

(2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,

(3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”

(9 VAC 5-80-110 F)

#### **D. Annual Compliance Certification**

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
2. The identification of each term or condition of the permit that is the basis of the certification.
3. The compliance status.
4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
6. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)  
U. S. Environmental Protection Agency, Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

#### **E. Permit Deviation Reporting**

The permittee shall notify the Director, Valley Region, within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition XI.C.3 of this permit.  
(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

#### **F. Failure/Malfunction Reporting**

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, Valley Region, by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Valley Region.  
(9 VAC 5-20-180 C)

#### **G. Severability**

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.  
(9 VAC 5-80-110 G.1)

#### **H. Duty to Comply**

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.  
(9 VAC 5-80-110 G.2)

**I. Need to Halt or Reduce Activity not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(9 VAC 5-80-110 G.3)

**J. Permit Modification**

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1790, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios. (9 VAC 5-80-190 and 9 VAC 5-80-260)

**K. Property Rights**

The permit does not convey any property rights of any sort, or any exclusive privilege. (9 VAC 5-80-110 G.5)

**L. Duty to Submit Information**

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality. (9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G. (9 VAC 5-80-110 K.1)

**M. Duty to Pay Permit Fees**

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-355. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department. (9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

**N. Fugitive Dust Emission Standards**

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

**O. Startup, Shutdown, and Malfunction**

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-50-20 E and 9 VAC 5-40-20 E)

**P. Alternative Operating Scenarios**

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described

in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1. (9 VAC 5-80-110 J)

#### **Q. Inspection and Entry Requirements**

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

#### **R. Reopening For Cause**

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

#### **S. Permit Availability**

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

#### **T. Transfer of Permits**

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.  
(9 VAC 5-80-160)
2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.  
(9 VAC 5-80-160)
3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.  
(9 VAC 5-80-160)

#### **U. Malfunction as an Affirmative Defense**

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.
2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
  - a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
  - b. The permitted facility was at the time being properly operated.

- c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.
  - d. The permittee notified the board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F.2.b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.
- 3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.
  - 4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

#### **V. Permit Revocation or Termination for Cause**

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80, Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.

(9 VAC 5-80-190 C and 9 VAC 5-80-260)

#### **W. Duty to Supplement or Correct Application**

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.

(9 VAC 5-80-80 E)

## **X. Stratospheric Ozone Protection**

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.  
(40 CFR Part 82, Subparts A-F)

## **Y. Asbestos Requirements**

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).  
(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

## **Z. Accidental Release Prevention**

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.  
(40 CFR Part 68)

## **AA. Changes to Permits for Emissions Trading**

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.  
(9 VAC 5-80-110 I)

## **BB. Emissions Trading**

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

## **SOURCE TESTING REPORT FORMAT**

### Cover

1. Plant name and location
2. Units tested at source (indicate Ref. used by source in permit or registration)
3. Tester; name, address and report date

### Certification

1. Signed by team leader / certified observer (include certification date)
- \* 2. Signed by reviewer

### Introduction

1. Test purpose
2. Test location, type of process
3. Test dates
- \* 4. Pollutants tested
5. Test methods used
6. Observers' names (industry and agency)
7. Any other important background information

### Summary of Results

1. Pollutant emission results / visible emissions summary
2. Input during test vs. rated capacity
3. Allowable emissions
- \* 4. Description of collected samples, to include audits when applicable
5. Discussion of errors, both real and apparent

### Source Operation

1. Description of process and control devices
2. Process and control equipment flow diagram
3. Process and control equipment data

### \* Sampling and Analysis Procedures

1. Sampling port location and dimensioned cross section
2. Sampling point description
3. Sampling train description
4. Brief description of sampling procedures with discussion of deviations from standard methods
5. Brief description of analytical procedures with discussion of deviation from standard methods

### Appendix

- \* 1. Process data and emission results example calculations
2. Raw field data
- \* 3. Laboratory reports
4. Raw production data
- \* 5. Calibration procedures and results
6. Project participants and titles
7. Related correspondence
8. Standard procedures

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\* Not applicable to visible emission evaluations.